Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Hospital-based inpatient psychiatric services: the percentage of patients discharged from a hospital-based inpatient psychiatric setting on two or more antipsychotic medications with appropriate justification.

Source(s)

Specifications manual for Joint Commission national quality measures, version 2016A. Oakbrook Terrace (IL): The Joint Commission; Effective 2016 Jul 1. various p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of patients discharged from a hospital-based inpatient psychiatric setting on two or more antipsychotic medications with appropriate justification.

This measure represents the overall rate. The following rates are also reported:

Children age 1 through 12 years
Adolescent age 13 through 17 years
Adult age 18 through 64 years
Older adult age greater than or equal to 65 years

Rationale

Research studies have found that 4% to 35% of outpatients and 30% to 50% of inpatients treated with

an antipsychotic medication concurrently received 2 or more antipsychotics (Covell et al., 2002; Ganguly et al., 2004; Gilmer et al., 2007; Kreyenbuhl et al., 2006; Stahl & Grady, 2004). One study reported 4.6% of patients concurrently received 3 or more antipsychotics (Jaffe & Levine, 2003). These findings are seen across diverse sectors: state mental health authorities, the Veterans Health System and Medicaid-financed care. Antipsychotic polypharmacy can lead to greater side effects, often without improving clinical outcomes (Ananth, Parameswaran, & Gunatilake, 2004; Stahl & Grady, 2004). As a result, a range of stakeholders have called for efforts to reduce unnecessary use of multiple antipsychotics (Centorrino et al., 2004; Gilmer et al., 2007; National Association of State Mental Health Program Directors [NASMHPD], 2001; University Healthsystem Consortium, 2006). Practice guidelines recommend the use of a second antipsychotic only after multiple trials of a single antipsychotic have proven inadequate (Lehman et al., 2004). Randomized controlled trials (RCTs) provide some evidence to support augmentation with a second antipsychotic in *treatment resistant* patients. Most of these studies were limited to augmentation of clozapine with another second-generation antipsychotic (Tranulis et al., 2008). Among patients *without* a documented history of previous treatment failures of antipsychotic monotherapy, multiple RCTs and other controlled trials failed to show a benefit of antipsychotic polypharmacy over monotherapy (Ananth, Parameswaran, & Gunatilake, 2004; Centorrino et al., 2004; Potkin et al., 2002; Shim et al., 2007; Stahl & Grady, 2004). Clinical circumstances, such as shorter inpatient stays, may require hospitals to discharge a patient on multiple antipsychotics with an aftercare plan to transition to monotherapy. In such cases, effective communication between the inpatient and aftercare clinician is an essential element of care.

Evidence for Rationale

Ananth J, Parameswaran S, Gunatilake S. Antipsychotic polypharmacy comparing monotherapy with polypharmacy and augmentation. Curr Med Chem. 2004;11(3):313-327.

Ananth J, Parameswaran S, Gunatilake S. Antipsychotic polypharmacy comparing monotherapy with polypharmacy and augmentation. Curr Pharm Des. 2004;10(18):2231-38.

Centorrino F, Goren JL, Hennen J, Salvatore P, Kelleher JP, Baldessarini RJ. Multiple versus single antipsychotic agents for hospitalized psychiatric patients: case-control study of risks versus benefits. Am J Psychiatry. 2004 Apr;161(4):700-6. PubMed

Covell NH, Jackson CT, Evans AC, Essock SM. Antipsychotic prescribing practices in Connecticut's public mental health system: rates of changing medications and prescribing styles. Schizophr Bull. 2002;28(1):17-29. PubMed

Ganguly R, Kotzan JA, Miller LS, Kennedy K, Martin BC. Prevalence, trends, and factors associated with antipsychotic polypharmacy among Medicaid-eligible schizophrenia patients, 1998-2000. J Clin Psychiatry. 2004 Oct;65(10):1377-88. PubMed

Gilmer TP, Dolder CR, Folsom DP, Mastin W, Jeste DV. Antipsychotic polypharmacy trends among Medicaid beneficiaries with schizophrenia in San Diego County, 1999-2004. Psychiatr Serv. 2007 Jul;58(7):1007-10. PubMed

Jaffe AB, Levine J. Antipsychotic medication coprescribing in a large state hospital system. Pharmacoepidemiol Drug Saf. 2003 Jan-Feb;12(1):41-8. PubMed

Kreyenbuhl J, Valenstein M, McCarthy JF, Ganoczy D, Blow FC. Long-term combination antipsychotic treatment in VA patients with schizophrenia. Schizophr Res. 2006 May;84(1):90-9. PubMed

Lehman AF, Lieberman JA, Dixon LB, McGlashan TH, Miller AL, Perkins DO, Kreyenbuhl J, American

Psychiatric Association, Steering Committee on Practice Guidelines. Practice guideline for the treatment of patients with schizophrenia, second edition. Am J Psychiatry. 2004 Feb;161(2 Suppl):1-56. [642 references] PubMed

National Association of State Mental Health Program Directors (NASMHPD). Technical report on psychiatric polypharmacy. Alexandria (VA): NASMHPD; 2001.

Potkin SG, Thyrum PT, Alva G, Bera R, Yeh C, Arvanitis LA. The safety and pharmacokinetics of quetiapine when coadministered with haloperidol, risperidone, or thioridazine. J Clin Psychopharmacol. 2002 Apr;22(2):121-30. PubMed

Shim JC, Shin JG, Kelly DL, Jung DU, Seo YS, Liu KH, Shon JH, Conley RR. Adjunctive treatment with a dopamine partial agonist, aripiprazole, for antipsychotic-induced hyperprolactinemia: a placebo-controlled trial. Am J Psychiatry. 2007 Sep;164(9):1404-10. PubMed

Specifications manual for Joint Commission national quality measures, version 2016A. Oakbrook Terrace (IL): The Joint Commission; Effective 2016 Jul 1. various p.

Stahl SM, Grady MM. A critical review of atypical antipsychotic utilization: comparing monotherapy with polypharmacy and augmentation. Curr Med Chem. 2004 Feb;11(3):313-27. [173 references] PubMed

Tranulis C, Skalli L, Lalonde P, Nicole L, Stip E. Benefits and risks of antipsychotic polypharmacy: an evidence-based review of the literature. Drug Saf. 2008;31(1):7-20. [79 references] PubMed

University Healthsystem Consortium. Mental health performance measures field brief. Oakbrook (IL): University Healthsystem Consortium; 2006.

Primary Health Components

Psychiatric inpatient; antipsychotic medications; appropriate justification

Denominator Description

Psychiatric inpatient discharges (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Psychiatric inpatients who are discharged on two or more routinely scheduled antipsychotic medications with appropriate justification

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

The practice of prescribing more than one antipsychotic medication is a major contributor to high-dose prescribing which increases the potential of adverse side effects. This practice is also of limited value in helping to establish the optimum medication maintenance regime for the patient. Practice guidelines recommend the use of a second antipsychotic only after multiple trials of a single antipsychotic have proven inadequate. The following are evidence-based justifications for prescribing more than one antipsychotic medication. One pharmacological justification for combining antipsychotic medications is to achieve greater therapeutic potential by optimizing dopamine D2 receptors; however, there are few sources of evidence to support this. Randomized controlled trials (RCTs) provide some evidence to support augmentation with a second antipsychotic in treatment resistant patients. Most of these studies were limited to augmentation of clozapine with another second-generation antipsychotic medication. Among patients without a documented history of previous treatment failures of antipsychotic monotherapy, multiple RCTs and other controlled trials failed to show a benefit of antipsychotic polypharmacy over monotherapy. Clinical circumstances, such as shorter inpatient stays, may require hospitals to discharge a patient on multiple antipsychotics with an aftercare plan to transition to monotherapy. Cross-tapering to monotherapy should generally be completed within 8 weeks; therefore, effective communication of the cross-tapering plan between the inpatient and aftercare clinician is an essential element of care.

Evidence for Additional Information Supporting Need for the Measure

Ananth J, Parameswaran S, Gunatilake S. Antipsychotic polypharmacy comparing monotherapy with polypharmacy and augmentation. Curr Med Chem. 2004;11(3):313-327.

Ananth J, Parameswaran S, Gunatilake S. Antipsychotic polypharmacy comparing monotherapy with polypharmacy and augmentation. Curr Pharm Des. 2004;10(18):2231-38.

Barnes TR, Paton C. Antipsychotic polypharmacy in schizophrenia: benefits and risks. CNS Drugs. 2011 May;25(5):383-99. PubMed

Centorrino F, Goren JL, Hennen J, Salvatore P, Kelleher JP, Baldessarini RJ. Multiple versus single antipsychotic agents for hospitalized psychiatric patients: case-control study of risks versus benefits. Am J Psychiatry. 2004 Apr;161(4):700-6. PubMed

Lehman AF, Lieberman JA, Dixon LB, McGlashan TH, Miller AL, Perkins DO, Kreyenbuhl J, American Psychiatric Association, Steering Committee on Practice Guidelines. Practice guideline for the treatment of patients with schizophrenia, second edition. Am J Psychiatry. 2004 Feb;161(2 Suppl):1-56. [642 references] PubMed

Potkin SG, Thyrum PT, Alva G, Bera R, Yeh C, Arvanitis LA. The safety and pharmacokinetics of quetiapine when coadministered with haloperidol, risperidone, or thioridazine. J Clin Psychopharmacol. 2002 Apr;22(2):121-30. PubMed

Shim JC, Shin JG, Kelly DL, Jung DU, Seo YS, Liu KH, Shon JH, Conley RR. Adjunctive treatment with a dopamine partial agonist, aripiprazole, for antipsychotic-induced hyperprolactinemia: a placebo-controlled trial. Am J Psychiatry. 2007 Sep;164(9):1404-10. PubMed

Stahl SM, Grady MM. A critical review of atypical antipsychotic utilization: comparing monotherapy with polypharmacy and augmentation. Curr Med Chem. 2004 Feb;11(3):313-27. [173 references] PubMed

Tandon R. Antipsychotic polypharmacy: update and guidelines for practice. [internet]. 2012 [accessed 2012 Mar 27].

Tranulis C, Skalli L, Lalonde P, Nicole L, Stip E. Benefits and risks of antipsychotic polypharmacy: an evidence-based review of the literature. Drug Saf. 2008;31(1):7-20. [79 references] PubMed

Extent of Measure Testing

Alpha testing was conducted during May and June 2006 at approximately 40 volunteer test sites to assess feasibility and data collection effort. A set of measures was recommended by the Technical Advisory Panel (TAP) to comprise the final test set addressing the domains of Assessment, Patient Safety and Continuity/Transitions of Care.

The Specification Manual for National Hospital Inpatient Quality Measures Hospital-Based Inpatient Psychiatric Services Test Set was finalized in September 2006. In late 2006 a total of 196 hospitals volunteered to participate in the Hospital-Based Inpatient Psychiatric Services (HBIPS) pilot test. Data collection for the test set began with January 1, 2007 discharges and continued throughout December 31, 2007.

During the first quarter of the pilot test, a subset of 39 hospitals was randomly selected to collect and transmit monthly hospital clinical data (HCD) to help assess data quality and data reliability. The data quality study continued with data collection and transmission for the 12 months of 2007. Feedback on data quality was provided to each performance measurement systems vendor submitting HCD.

The final phase of testing consisted of site visits to a sample of participating pilot hospitals to assess the reliability of data abstracted and reported by those hospitals. Reliability test site visits were conducted at 18 randomly selected pilot hospitals. Selection of the test sites was based on multiple characteristics, including hospital demographics, populations served, bed size and type of facility.

All of the HBIPS measures have undergone a rigorous process of public comment, alpha testing and broad-scale pilot testing and are recognized by the field as important indicators of hospital-based inpatient psychiatric care.

Evidence for Extent of Measure Testing

Domzalski K. (Associate Project Director, Division of Healthcare Quality Evaluation, Department of Quality Measurement. The Joint Commission. Oakbrook Terrace, IL). Personal communication. 2010 Nov 16. 1 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Measurement Setting

Hospital Inpatient

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Specified

Target Population Age

All patients age one year and older

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Making Care Safer
Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Getting Better

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

Discharges July 1 through December 31

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Institutionalization

Therapeutic Intervention

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
Psychiatric inpatient discharges with *International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Principal or Other Diagnosis Codes* for mental disorders (as defined in the appendices of the original measure documentation) who are discharged on two or more routinely scheduled antipsychotic medications*

*Refer to the Antipsychotic Medications table in the appendices of the original measure documentation.

Exclusions

- Patients who expired
- Patients with an unplanned departure resulting in discharge due to elopement
- Patients with an unplanned departure resulting in discharge due to failing to return from leave
- Patients with a Length of Stay (LOS) less than or equal to 3 days

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions
Psychiatric inpatients who are discharged on two or more routinely scheduled antipsychotic medications with appropriate justification

Exclusions
None

Numerator Search Strategy

Institutionalization

Data Source

Administrative clinical data

Paper medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

- Hospital-Based Inpatient Psychiatric Services (HBIPS) Initial Patient Population Algorithm Flowchart
- HBIPS-5: Patients Discharged on Multiple Antipsychotic Medications with Appropriate Justification Flowchart

Computation of the Measure

Measure Specifies Disaggregation

Measure is disaggregated into categories based on different definitions of the denominator and/or numerator

Basis for Disaggregation

This measure is disaggregated according to the following age groups:

Children age 1 through 12 years
Adolescent age 13 through 17 years
Adult age 18 through 64 years
Older adult age greater than or equal to 65 years

Data Reported As: Aggregate rate generated from count data reported as a proportion.

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

HBIPS-5: Patients discharged on multiple antipsychotic medications with appropriate justification.

Measure Collection Name

National Quality Core Measures

Measure Set Name

Hospital-Based Inpatient Psychiatric Services

Submitter

The Joint Commission - Health Care Accreditation Organization

Developer

The Joint Commission - Health Care Accreditation Organization

Funding Source(s)

All external funding for measure development has been received and used in full compliance with The Joint Commission's Corporate Sponsorship policies, which are available upon written request to The Joint Commission.

Composition of the Group that Developed the Measure

The composition of the group that developed the measure is available at: http://www.jointcommission.org/assets/1/6/HBIPS%20TAP%20Members.pdf .

Financial Disclosures/Other Potential Conflicts of Interest

Expert panel members have made full disclosure of relevant financial and conflict of interest information in accordance with the Joint Commission's Conflict of Interest policies, copies of which are available upon written request to The Joint Commission.

Endorser

National Quality Forum - None

NQF Number

not defined yet

Date of Endorsement

2014 Feb 28

Measure Initiative(s)

Inpatient Psychiatric Facility Quality Reporting Program

Quality CheckÂ®

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2016 Jul

Measure Maintenance

Every six months

Date of Next Anticipated Revision

2017 Jan

Measure Status

This is the current release of the measure.

This measure updates a previous version: Specifications manual for Joint Commission national quality core measures, version 2015B. Oakbrook Terrace (IL): The Joint Commission; Effective 2015 Oct 1. 327 p.

Measure Availability

Source available from The Joint Commission Web site .

For more information, contact The Joint Commission at One Renaissance Blvd., Oakbrook Terrace, IL 60181; Phone: 630-792-5800; Fax: 630-792-5005; Web site: www.jointcommission.org .

NQMC Status

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Copyright Statement

Production

Source(s)

Specifications manual for Joint Commission national quality measures, version 2016A. Oakbrook Terrace (IL): The Joint Commission; Effective 2016 Jul 1. various p.

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